

Lec 1 - Introduction

- Gloss - Word per word lexical and grammatical translation
- Person
 - 1 - Include speaker
 - 2 - Include addressee
 - 3 - Etc
- Number
 - SG - Singular
 - PL - Plural
- Gender - Noun classes
- Tense - time wrt speech event
 - Morphological tense - NON-PAST vs PAST in English, look/looked
- Aspect - shape, distribution or internal organization of the event in time
 - Only progressive aspect marked morphologically in EN, is/was working
 - PERFECTIVE vs IMPERFECTIVE - single whole vs steps (wrote vs is writing/writes)
 - PERFECT - Past event that continues to have an effect (has destroyed, still destroyed)
- Mood - declarative, imperative, interrogative
- Modality - speaker's attitude towards the proposition being expressed or actor's relationship to the described situation, uses auxiliary verbs in English

Lec 2 - Word class, semantic roles, grammatical relations

- Word classes/parts of speech/lexical category - sets of words that share certain features
 - Distribution - similar environments
 - Form - morphological operations
- Verbs
 - Tests
 - "Lily wanted to ____" - Lily wanted to like a banana
 - Having a part tense form - Lily liked a banana
 - -s suffix to agree with 3rd person sing subj - Lily likes a banana/They like a banana
 - Argument - phrase expressing an obligatory participant in the event/relation/situation/property denoted by the verb/predicate
 - Participant - the conceptual person/thing/place/time that plays a role in the conceptual event
 - "Lily" and "a girl" are participants in "Lily saw a girl"
 - "a girl" is not a participant in "Lily is a girl", it denotes a property of Lily
 - Complement - any non-subject phrase required syntactically by some head/word
 - "Lily is a girl" -> "a girl" is a complement but not a participant
 - "Lily saw a girl" -> "a girl" is both a complement and a participant
 - Adjunct - optional modifying phrases
 - Use omission test to identify
 - (Lily) -> optional, *(Lily) -> omission unacceptable, (*Lily) -> inclusion unacceptable
 - Transitivity - number of arguments of a verb
 - Intransitive/(mono)transitive/ditransitive - exactly 1/(exactly) 2/exactly 3 arguments
 - Ambitransitive - transitivity is context dependent (vase broke vs Lily broke the vase)
- Adjectives
 - Tests

- really/too/very/quite _____
 - seems _____
 - as _____ as
 - so/less _____
 - _____-er, _____-est
- Attributive vs predicative - “cute Lily” vs “Lily is cute”
- Adverbs
 - Ragbag category (etc)
 - Similar tests to adjectives
 - very/quite/most _____
 - as _____ as
 - -er and -est for some
 - Complementary with adjectives (cannot modify nouns)
- Prepositions
 - Tests
 - straight/right/well/just _____ (unreliable)
 - Transitive or intransitive - “of the stairs” vs aboard (can also be ambi)
 - PPs vs adverbs
 - Can modify nouns - *A tactfully manager / A manager with tact
 - Complement of main verb be - *Lily was enthusiastically / Meeting is on Tues
- Determiners vs Pronouns
 - Det occurs before (Adj) N to form NP
 - “Her pen” (D) vs “Meet her” (Pr)
 - “This house” (D) vs “I like this” (Pr)
 - ***Treat proper nouns as pronouns**
 - Nominative case (I you he she it we they) vs Accusative case (me you him her it is them)
- Subject
 - Usually the part before the verb
 - Subject verb agreement
 - Use nominative case (I you he she it we they)
- Object
 - Use accusative case (me you him her it us them)
 - Subject in passive clause (Lily sells products vs Products were sold by Lily)
 - Not all complements are objects (Lily is a girl)

Lec 3 - Sentences and Clauses

- Simple sentence - 1 clause/predicate
 - Predicate - element of meaning that expresses the event/relation/situation/property that the clause is about
 - Usually but not always a verb such as in “Lily is cute”, called predicate complements in this case
- Finite verb - can be marked for grammar such as tense, aspect, agreement, etc
 - Ex: Lily likes sushi/Lily liked sushi vs Lily tried to like sushi/*Lily tried to liked sushi
 - Usually have overt subjects
 - Simple sentences can only have one finite verb
 - Always comes first
- Auxiliary Verbs

- Verbs that are not predicates
- Bear tense, aspect, mood (TAM) info for the main verb
- Modal auxiliary verbs - special class
 - Don't take the 3SG.SUBJ.PRES -s inflection
 - Always in finite form (so always first and occurs with non-finite verbs)
 - The verb right after must always be in infinitival form
- Main verb
 - Typically the predicate (except when the predicate is not a verb)
 - Always occurs last in a sequence of verbs (in English)
- Non-finite verb
 - Not marked for tense, aspect, agreement (-s agreement or tense inflection)
 - Often no overt subjects (Lily wants Briget to sing vs Lily wants to sing)
 - Infinitives
 - Bare verb stem (in English)
 - After modals or auxiliary *do* (Lily should/did eat)
 - After infinitival *to* (Lily wants to eat)
 - Participles
 - Everywhere else where the verb is non-finite (complementary distrib with infinitives)
 - *Counterexample: Lily saw her blink(ing)
 - **Must be a verb in the first place**
 - Killing of the dog -> The killing(s) of the dog -> killing is a noun
 - The rotten apple -> the very rotten apple, seems rotten, as rotten as -> adj
 - Being annoying -> same as rotten above -> adj
 - Present participle
 - Lily is *laughing*. (progressive)
 - *Laughing* loudly, Lily entered the room. (subordinate clause)
 - Past participle
 - Lily has *eaten* the apple (perfect)
 - The apple was *eaten* by Lily (passive)
- Complex sentences
 - Sentences with more than one clause
 - Clausal coordination
 - Each clause is independent and they have equal syntactic status (no dependency)
 - Clausal subordination
 - Not equal syntactic status
 - Subordinate/embedded clause is dependent on the matrix clause
 - Required by predicate in matrix clause (Lily knows it's illegal.) or unable to stand alone (The students laughed to annoy the teacher.)
 - Word introducing subordinate clause forms constituent with the subordinate clause
 - Complement clause - Required by the predicate in a matrix clause
 - Adjunct clause - Not required by any predicate, can typically be moved around
 - *Pronouns must find their antecedent outside of their own clause

Lec 4 - Dependencies: heads and their dependents

- Head - most important word in a phrase
 - Bears the central semantic information
 - Determines phrasal category ("word class of the phrase")

- Selects obligatory participants and imposes restrictions on dependents
- Predicate is the head of a clause
- Dependents - all the words/phrases in some phrase that bear some relation to head
 - Complements
 - Typically obligatory
 - Close relationship with the head (usually appear closer)
 - Adjuncts
 - Always optional, provide extra info
- Four cross-linguistically common construction types
 - Clause
 - Head - Predicate
 - Dependents - Subject, complements, and adjuncts of the predicate
 - Adpositional Phrase (in the house)
 - Head - Adposition
 - Dependents - Complement
 - Possessive Phrase (Lily's laptop)
 - Head - Possessed
 - Dependents - Possessor
 - Noun + Modifying Adjective Phrase
 - Head - Noun
 - Dependents - Adjective
- Head-initial vs Head-final
 - Head at the start or end of the clause
 - Ignore subject since subject tends to come first regardless
- Head-marking vs Dependent-marking
 - Special marking to indicate the relationship between head and dependents
 - Does not count markers not indicating the relationship
 - Ex: INAN-on 1SG-pants: 1SG is not considered (INAN = inanimate)
 - Head-marked languages can sometimes drop dependents without affecting interpretability
 - Dependent-marked languages can sometimes swap the order of dependents
 - Many languages mark both
 - PP Markings
 - Special form for dependents in English (ACC case for pronouns)
 - Clause Markings
 - SUBJ - marks head with subject of the clause
 - OBJ - marks head with object of a predicate
 - NOM - marks subject
 - ACC - marks object
 - Possessive Construction Markings
 - GEN - Marks possessor (Lily's laptop)
 - POSS - Marks possessed (Lily's laptop)
 - Noun + Modifying Adjective Construction Markings
 - MOD - Mark on the noun being modified
 - M/F - Marks the gender of the noun on the adjective
 - **NOTE: Noun class/gender is an inherent property of a noun, so such a thing does not count as head/dependent marking**

Lec 5 - Constituents, trees & rules

- Phrase Structure Rules (XP → X YP)
 - XP immediately dominates X, YP
 - XP is the mother of X, YP
 - X, YP are sisters
 - XP → X,YP means that the order of X and YP can be swapped
 - Phrase gets phrasal category from head daughter
 - **Phrase Structure Rules of English (Lec 5 Slide 7)**
- Principle of Modification (PoM)
 - If a phrase YP modifies (is semantically related to) a head X, then X and YP must be sisters

Lec 6 - How do we identify constituents?

- Constituent - string of elements that behaves like a single unit
- Constituency Tests - Determine if something is a constituent
- Syntactic/Structural Ambiguity vs Lexical Ambiguity - from syntactic structure vs word with multiple meanings
 - Constituency Tests solve syntactic ambiguity since they reveal syntactic structure
- Pronoun Replacement Test
 - Can be replaced by a pronoun → is an NP
- Sentence Fragment Test
 - Answers a question → is a constituent
 - Ex: "Lily decided on the train."
Where did Lily decide? On the train
Kills off the other interpretation of choosing a train
- Echo-Question Test
 - Replace with *wh* word/phrase → is a constituent
 - Ex: "She kissed the man in her PJs."
She kissed who? The man in her PJs **OR** She kissed who in her PJs? The man
She kissed the man how? in her PJs
- Cleft Construction
 - It be **...[focus]...** that/who(m) ...[rest of original sentence]
String of words into [focus] → it is a constituent
 - Ex: "Leslie teaches linguistics at NUS."
It is Leslie who teaches linguistics at NUS
It is linguistics that Leslie teaches at NUS
- Pseudocleft (*wh*-cleft) Construction
 - **...[focus]...** be what/who/where... [rest of original sentence]
String of words into [focus] → it is a constituent
 - Ex: "Leslie teaches linguistics at NUS."
Teach linguistics is what Leslie does at NUS. (need to add *do* since it is a VP)
- Do So Test
 - Replace with *do so* → is a VP
 - Ex: "Lily likes fish"
Lily does so.
Lily likes fish, and Bridget does so too.
 - **Recursion: VP → VP PP**
 - Complements of the verb must also be replaced together with the verb in the do so test

- A verb with its complements forms the smallest VP
- Coordination Test
 - Only constituents of the same category can be coordinated
- Transitive Phrasal Verbs
 - Not to be confused with prepositional verb (verb with a PP)
 - Turn in X, Bring up X, Ring up X / Turn X in, Bring X in, Turn Ring X up
 - Decide on X, Count on X

Lec 7 (Week 8) - X-Bar Theory

- **Revised Principle of Modification (POM)**
 - If A modifies B, then A must be the daughter of some projection of B (B' or BP)
- Replacement Tests
 - One - Replaces N's
 - Caveats in next lecture
 - Do So - Replaces V's
 - So - Replaces Adj's (Slide 25 of pdf)
- Complements must be inside X', Adjuncts attach to X' one by one
- Can only coordinate constituents of the same type (X CONJ X, X' CONJ X', XP CONJ XP)
- **X-Bar Schema**
 - X is in {N,V,Adj,Adv,P}
 - X' -> X (WP)
 - X' -> X', YP
 - XP -> (ZP) X'
- Tree Theoretic Definitions
 - Complement - Sister of X and daughter of X'
 - All complements must attach at the same time
 - Adjunct - Sister of X' and daughter of X'
 - Specifier - Sister of X' and daughter of XP
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Lec 8 (Week 9) - X-Bar Theory (Continued)

- 3 rules
 - X' -> X, (complement)
 - X' -> X', adjunct
 - XP -> (specifier), X'
 - (plus CONJ rule)
- TP
 - T can be empty
 - VP is complement
 - NP/CP is specifier
- One replacement caveats
 - Does not work for bare nouns/nouns with a/an
 - a/an -> the/this/that/these/those

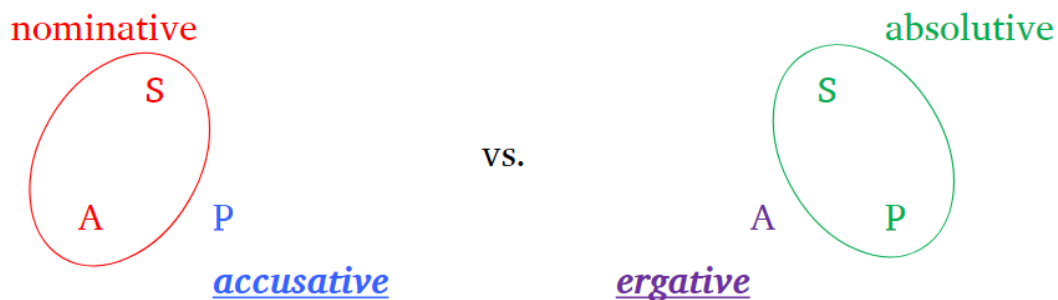
Lec 9 (Week 11) - Relationships Within the Clause

- Basic Constituent Order Tendencies
 - SOV > SVO > VSO > VOS > OVS > OSV
 - 80% are subject initial
 - OV adjacent in >90% of languages

- VO tend to be head-initial, OV tend to be head-final
- **Accusative vs Ergative Cases**
 - Accusative
 - nominative - S,A
 - accusative - P
 - Ergative
 - absolutive - S,P
 - ergative - A

(nominative-)accusative vs. ergative(-absolutive) case alignment systems

- the abbreviation for each alignment system follows the ‘odd’ case



- Case vs Verbal Agreement
 - Case - marked on noun
 - Verbal - marked on verb
 - Accusative case + ergative agreement doesn't exist
- Syncretism - same morphological form for different functions
- Morphological vs Syntactic Agreement
 - Morphological - case and verbal as above
 - Syntactic - syntactic phenomena that treat S,A (or S,P) differently from P (or A)
 - Ex: unexpressed argument in non-finite clause can be S,A but not P
 - Ex: unexpressed conjunct in 2nd conjunct can be S,P but not A

Lec 10 (Week 12) - Processes That Change Grammatical Relations

- Valence - number of core/direct arguments required by the predicate
 - core/direct arguments
 - express S/A/P
 - typically NPs
 - core case marking (NOM/ACC/ERG/ABS)
 - non-core/oblique arguments
 - non-core marking
 - typically PPs
 - case other than NOM/ACC/ERG/ABS
 - Direct Passive
 - Valence reducing
 - A -> OBL/∅
 - P -> S/A

- *Tend to be in morphologically and syntactically accusative languages, not always
- Indirect Passive
 - A -> OBL/∅
 - OBL -> S/A
- Impersonal
 - S/A -> OBL/∅
 - *Languages tend to develop passive before impersonal
- Antipassive
 - Valence reducing
 - P -> OBL/∅
 - A(ERG) -> S(ABS)
 - **Only occurs in ergative languages by definition**
 - c.f Conative alternation in EN (ACC) (She shot him -> she shot at him)
- Applicative
 - OBL -> P (most important part)
 - P -> OBL/secondary object (not required)
 - Can also apply to intransitives
 - c.f. English dative construction (slide 26) (not counted since verb doesn't change)
- Causative
 - Usually valence increasing
 - New A cause former S/A to do the verb
 - Semantics of causation
 - Former S/A to V

Lec 11 (Week 13) - Filler-Gap Dependencies

- wh-questions (content/information questions)
 - “open questions” - set of possible answers is open (c.f. yes/no questions)
 - **wh-in-situ** - wh-expression occurs where replaced constituent is
 - **wh-ex-situ** - wh-expression replaces constituent and is fronted (filler), leaving a gap
 - Creates a **filler-gap dependency**
- Multiple wh-questions
 - all in-situ (JP)
 - 1 ex-situ, rest in-situ (EN)
 - all ex-situ (Bulgarian, slide 14)
 - some allow all 3 strategies
- Relative Clause
 - Subordinate clause in NP modifying the head noun
 - Modified noun is a participant (usu gapped) in the subordinate clause
 - c.f. noun-complement phrases (noun is not a participant)
 - Resumptive pronoun - pronoun put into the gap
- NP Accessibility Hierarchy
 - Subj > Obj > Obj of adposition > Poss > Obj of comparison
 - All languages allow relativization of subjects
 - Relativize X -> All above X can be relativized
 - Cannot relativize X -> All below X cannot be relativized
 - Resumptive Pronoun for X -> Resumptive pronoun for all relativizable below X
 - [Relativizable without resumptive] > [Relativizable with resumptive] > [Not relativizable]

Misc Notes

*that not included in subordinate clause

"clause" refers to TP, not CP

included in relative clause though

*(x) : cannot optional

(*x) : cannot include